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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER <b>1455-062610</b> U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/591894</b>
INTERNATIONAL APPLICATION NO. <b>PCT/KR2005/000650</b>	INTERNATIONAL FILING DATE <b>09 March 2005</b>	PRIORITY DATE CLAIMED <b>09 March 2004</b>
<b>TITLE OF INVENTION</b> <b>A LARGE-AREA SHOWER ELECTRON BEAM IRRADIATOR WITH FIELD EMITTERS AS AN ELECTRON SOURCE</b>		
<b>APPLICANT(S) FOR DO/EO/US</b> Byung-Cheol LEE et al.		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</p> <p>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul> </p> <p>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul> </p> <p>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ul> </p> <p>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p>		
<p><b>Items 11 to 20 below concern document(s) or information included:</b></p> <p>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input checked="" type="checkbox"/> A preliminary amendment.</p> <p>14. <input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</p> <p>15. <input type="checkbox"/> A substitute specification.</p> <p>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</p> <p>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</p> <p>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</p> <p>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</p>		

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<p><b>20. Other items or information:</b>            International Preliminary Report on Patentability with Annexes and Amended Sheets of the International Application (8 pp.)            Abstract page for insertion into application (1 sheet)</p>																																																																																																																				
<table border="1"> <thead> <tr> <th colspan="2">The following fees have been submitted</th> <th>CALCULATIONS</th> <th>PTO USE ONLY</th> </tr> </thead> <tbody> <tr> <td>21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a)).....</td> <td>\$300</td> <td>\$ 300.00</td> <td></td> </tr> <tr> <td>22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))             If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0            All other situations..... \$200</td> <td></td> <td>\$ 200.00</td> <td></td> </tr> <tr> <td>23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))             If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0            Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100            International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400            All other situations..... \$500</td> <td></td> <td>\$ 400.00</td> <td></td> </tr> <tr> <td colspan="2"><b>TOTAL OF 21, 22 and 23 =</b></td> <td>\$ 900.00</td> <td></td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.</td> <td></td> <td></td> </tr> <tr> <td>Total Sheets</td> <td>Extra Sheets</td> <td>Number of each additional 50 or fraction thereof (round up to a whole number)</td> <td>RATE</td> </tr> <tr> <td>21 - 100 = 0</td> <td>/50 = 0</td> <td>x \$250</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="2">Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).</td> <td>\$ 130.00</td> <td></td> </tr> <tr> <td colspan="2">CLAIMS</td> <td>NUMBER FILED</td> <td>NUMBER EXTRA</td> <td>RATE</td> <td>\$</td> </tr> <tr> <td colspan="2">Total claims</td> <td>15 - 20 = 0</td> <td></td> <td>x \$ 50</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="2">Independent claims</td> <td>2 - 3 = 0</td> <td></td> <td>x \$200</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="3">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td></td> <td>+ \$360</td> <td>\$ 0.00</td> </tr> <tr> <td colspan="5"><b>TOTAL OF ABOVE CALCULATIONS =</b></td> <td>\$ 1,030.00</td> </tr> <tr> <td colspan="5"><input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.</td> <td></td> </tr> <tr> <td colspan="5"><b>SUBTOTAL =</b></td> <td>\$ 515.00</td> </tr> <tr> <td colspan="5">Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).</td> <td>\$</td> </tr> <tr> <td colspan="5"><b>TOTAL NATIONAL FEE =</b></td> <td>\$ 515.00</td> </tr> <tr> <td colspan="5">Fee for recording the enclosed assignment (37 CFR 1.21(h)). 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10/591894  
IAP9 Rec'd PCT/PTO 07 SEP 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

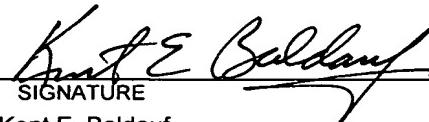
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- a.  A check in the amount of \$ 515.00 to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 23-0650. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Kent E. Baldauf  
The Webb Law Firm  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219-1845  
Telephone: (412) 471-8815  
Facsimile: (412) 471-4094



SIGNATURE

Kent E. Baldauf

NAME

25,826

REGISTRATION NUMBER

10/591 894  
IAP9 Rec'd PCT/PTO 07 SEP 2006

PATENT APPLICATION/PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN RE APPLICATION OF:

ATTORNEY'S DOCKET NUMBER

Byung-Cheol LEE et al.

1455-062610

PCT/KR2005/000650

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ENTITLED

**"A LARGE-AREA SHOWER ELECTRON BEAM IRRADIATOR WITH FIELD  
EMITTERS AS AN ELECTRON SOURCE"**

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Commissioner for Patents  
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Alexandria, VA 22313-1450

**EXPRESS MAIL CERTIFICATE**

"Express Mail" Label Number EV908695232US

Date of Deposit September 7, 2006

I hereby certify that the following attached paper or fee

- **Transmittal Letter to the U.S. Designated/Elected Office (DO/EO/US) Concerning A Filing Under 35 U.S.C. 371 (3 pp. – in duplicate);**
- **Application Data Sheet (4 pp.);**
- **Preliminary Amendment (9 pp.);**
- **Abstract Insertion Page (1 p.);**
- **Copy of International Publication No. WO 2005/086201 A1 Front Page and International Search Report, Specification, Claims, Abstract and Drawings (21 pp.);**
- **International Preliminary Report on Patentability with Annexes and Amended Sheets (8 pp.); and**
- **Check in the amount of \$515.00**

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Kimberly N. Welday

(Typed name of person mailing paper or fee)

  
(Signature of person mailing paper or fee)